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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,589	10/28/2003	James M. Tranquilla	741805-1010	5372

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EXAMINER
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MCNELIS, KATHLEEN A

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/695,589

Applicant(s)

TRANQUILLA, JAMES M.

Examiner

Kathleen A. McNelis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 and 34-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 4, 6, 8, 22, 23, 29, 30, 35 and 36 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 7, 9-21, 24-28, 31, 34, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **Claims Status**

Claims 1-32 and 34-37 remain for examination wherein claims 6, 9-11 and 32 are amended and claims 35-37 are new.

### **Status of Previous Objections/Rejections**

The previous objection to claims 9-11 as improper multiple depending claims is withdrawn in view of applicants' amendments to the claims.

The previous rejection of claims 1, 3, 5, 7, 12-21, 24-28, 31, 32 and 34 under 35 U.S.C. 103(a) as being unpatentable over Herden et al. (U.S. Pat. No. 5,659,110) in view of Doelling (U.S. Pat. No. 4,967,486) is maintained.

### **DETAILED ACTION**

#### ***Claim Objections***

Applicant is advised that should claim 1 be found allowable, claim 38 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 37 recites the limitation "the carbon-free material" in line 7. There is insufficient antecedent basis for this limitation in the claim.

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Claims 1, 3, 5, 7, 9-21, 24-28, 31, 32, 34 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herden et al. (U.S. Pat. No. 5,659,110) in view of Doelling (U.S. Pat. No. 4,967,486).

Herden et al. in view of Doelling is applied as set forth in the 1/31/2006 office action.

Further, regarding claims 9-11, Herden et al. discloses the use of a cyclone (20) and filter following the cyclone wherein solids are trapped by the cyclone and returned (22) for further processing in a container (17 or 20). Additionally, solids from reactor 25 are withdrawn (28) to a container (i.e. cooler, 29) (Figure and col. 5 lines 30-56).

The amendment to claim 31 corrects a typographical error and does not change the scope of the claim.

Claims 2, 4, 6, 8, 22-23, 29-30, 35 and 36 are allowed for the reasons set forth on pages 6 and 7 of the 1/31/2006 office action.

### ***Response to Arguments***

Applicant's arguments filed 7/31/2006 have been fully considered but they are not persuasive.

Applicants' arguments are summarized as follows:

1. Herndon uses zeolites which tend to absorb rather than scrub mercury. When heated, the mercury comes back off. Herndon scrubs out then pulls the volatilized elemental mercury out using air rather than removing mercury by heating in the presence of a noncombustible material.

2. Doelling is a batch process and it is well known that it is difficult to make a continuous microwave energy process efficient; therefore it is not proper to combine with Herndon which is continuous.
3. There is no motivation to use the microwave energy process of Doelling with waste material and heating of Herndon because it would be impracticably expensive.

Examiner's responses to these arguments are as follows:

1. The claims do not recite limitations regarding mercury scrubbing vs. absorption. The rejected claims do not include the limitation that the heating is in the presence of noncombustible material. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
2. Making a process a continuous is prima facie obvious in the light of a batch process taught by prior art (see M.P.E.P. 2144.04 V E). Applicants' arguments regarding difficult in accomplishing this efficiently do not take the place of evidence. Further, examiner did not use efficiency as motivation for combining, but rather that the advantage of using microwave energy with a fluidized bed reactor is that the microwave energy penetrates into the product to drive off moisture (p. 4 of the 1/31/2006 office action). Arguments regarding the efficiency and expense are therefore moot.
3. See response to number 2 above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen A. McNelis whose telephone number is 571 272 3554. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAM  
9/29/2006



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